216: A Wound Prevalence Observational Study for the Prevention of Surgical Site Infections

Maureen Spencer, RN, BSN, M.Ed., CIC | Jacqueline Christie, RN, BSN, MPH, CIC
Patricia Tyrrell, RN, BSN, CNOR | Lynda Smirz, MD, MBA
UHS of Delaware, Inc. a subsidiary of Universal Health Services, King of Prussia, PA

ABSTRACT

Background: In June, 2014 an acute care hospital system conducted a Wound Closure Point Prevalence program to prevent post-op surgical site infection (SSI). The program monitored compliance with the Joint Commission (TOS) 07.50.01. The prevalence program evaluated the adoption of antibacterial sutures (AS) and topical skin adhesives (TSA) as part of a corporate 75 bundle that was implemented in 2012 to reduce SSI.10 hospitals participated out of the 25 hospitals in the system.

Method: The team consisted of trained nurse clinical specialists with operating room experience. Individual surgeons were in-serviced on the proper use of AS and TSA products. Observations also included some in L&D and ambulatory surgery. Other factors in wound closure observed were the use of staples, non-absorbable sutures, sternal strips, surgical drains and post-op dressing material. In addition, a lecture on the prevention of surgical site infections was presented to the surgical staff and administration to enlist effort commitment to teamwork in the reduction of SSIs.

Results: A total of 330 wound closure observations across 162 surgical procedures were observed. Surgical staple usage was highest among OB/GYN and Orth. Topical skin adhesive (TSA) usage had a wide variation in application techniques, applying more layers than required. Topical skin adhesive was often covered with unnecessary dressings. Evaluation of hip, knee, colon and hysterectomy rates in 2015 showed a 37.5% reduction in the participating hospitals through April 2015.

Conclusion: A direct observation program provided in-service on the proper use of AS and TSA products. Observations also included some in L&D and ambulatory surgery. Other factors in wound closure observed were the use of staples, non-absorbable sutures, sternal strips, surgical drains and post-op dressing material. In addition, a lecture on the prevention of surgical site infections was presented to the surgical staff and administration to enlist effort commitment to teamwork in the reduction of SSIs.

PROGRAM OBJECTIVE

Evaluate adoption of wound closure technologies that are a part of UHS’s 75 Bundle

• Identify risk factors for surgical site infection that can be addressed during wound closure

INNOVATIVE APPROACH

Risk assessments to identify gaps in policies

Staff training to reduce variation in practices

Patient education to engage patients in care

BROAD IMPACT

For patients

Protect against known risks for infection

For UHS...

Standardize practices across facilities

Ensure appropriate utilization of devices

Demonstrate “Elements of Performance” for Joint Commission’s TOS

METHODS

Ten (10) facilities were selected for the wound prevalence study based on their standardized infection ratio for surgical site infections. Any facility with a SIR > 1 was requested to participate in the observational study in the operating room to evaluate closure technique, the use of staples, drainage incisional adhesive and antimicrobial sutures. Experienced OR Clinical Specialists conducted observations and collected information. They also provided in-service education to surgeons and other surgical staff. The observations occurred over 2-3 days in the 10 facilities.

References


